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10/573,277	03/23/2006	Yoshio Yamazaki	JFE-06-1018	9391
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EXAMINER				
KESSLER, CHRISTOPHER S				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/573,277

**Applicant(s)**

YAMAZAKI ET AL.

**Examiner**

CHRISTOPHER KESSLER

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 7-16 is/are rejected.  
7) ☒ Claim(s) 9 and 10 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/CICE)  
Paper No(s)/Mail Date 4-12-06; 3-23-06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. Documents not available in English have not been considered and have been crossed off the IDS of 3/23/06 and 4/12/06.

### ***Claim Objections***

3. Claims 9 and 10 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 9 recites "wherein, instead of equations (1) and (2), equations (3) and (4) are satisfied." Claim 9 is outside of the scope of claim 7, and therefore improper. Claim 10 holds a similar limitation.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Document US 2005/0217768 A1 issued to Asahi et al. (hereinafter "Asahi").

Regarding claim 7, Asahi teaches the invention substantially as claimed. Asahi teaches an expandable oil country tubular good (see abstract). Asahi teaches that the tubular good comprises by wt %:

C: 0.03 to 0.3%,

Si: 0.8% or less,

Mn: 0.3 to 2.5%,

P: 0.03% or less,

S: 0.01% or less,

Nb: 0.01 to 0.3%,

Ti: 0.005 to 0.03%,

Al: 0.1% or less, and

N: 0.001 to 0.01%

and comprising a balance of Fe and unavoidable impurities (see claim 1).

The compositional ranges of the steel of Asahi overlap the instantly claimed compositional ranges, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have selected a composition within the range as claimed, because Asahi teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Asahi does not teach wherein the composition satisfies the equations (1) and (2) as claimed. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685, 688. In the instant case, Asahi teaches a steel with an overlapping compositional range, and it would have been obvious to one of ordinary skill in the art at time of invention to have made a composition satisfying the equations (1) and (2), because Asahi teaches the same utility over the entire range of composition.

Asahi does not teach a specific example of a seamless tubular good using the steel composition. However, Asahi teaches that the steel pipe may be made as a

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welded steel pipe, or as a seamless steel pipe (see [0144], for example). It would have been obvious to one of ordinary skill in the art at time of invention to have made a seamless steel pipe with the composition of Asahi, because Asahi teaches that the composition is suitable to make seamless steel pipes and is excellent in strength and toughness (see [0144]).

Regarding claim 8, Asahi further teaches wherein the composition comprises Ti (see claim 1).

Regarding claim 9, Asahi does not teach wherein the composition satisfies the equations (3) and (4) as claimed. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, In re Cooper and Foley 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, Taklatwalla v. Marburg, 620 O.G. 685, 1949 C.D. 77, and In re Pilling, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art. In re Austin, et al., 149 USPQ 685, 688. In the instant case, Asahi teaches a steel with an overlapping compositional range, and it would have been obvious to one of ordinary skill in the art at time of invention to have made a composition satisfying the equations (3) and (4), because Asahi teaches the same utility over the entire range of composition.

Regarding claim 10, Asahi does not teach wherein the composition satisfies the equations (3) and (4) as claimed. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, In

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re Cooper and Foley 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, Taklatwalla v. Marburg, 620 O.G. 685, 1949 C.D. 77, and In re Pilling, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art. In re Austin, et al., 149 USPQ 685, 688. In the instant case, Asahi teaches a steel with an overlapping compositional range, and it would have been obvious to one of ordinary skill in the art at time of invention to have made a composition satisfying the equations (3) and (4), because Asahi teaches the same utility over the entire range of composition.

Regarding claim 11, Asahi teaches that the steel tubular good is heat treated such that the microstructure comprises bainitic ferrite at 100% (see [0144]-[0148]). Although Asahi does not teach what the amount of ferrite is, the term "bainitic ferrite" at 100% of the microstructure reads on the range of ferrite as claimed, establishing a prima facie case of obviousness for that range. Applicant is further directed to MPEP 2144.05.

Regarding claims 12-14, Asahi is applied to the claim as stated above.

6. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asahi as applied to the claims above, and further in view of US Patent 5,873,960 issued to Kondo et al. (hereinafter "Kondo").

Regarding claim 15, Asahi does not teach a method including forming the pipe by a seamless steel pipe forming process which is performed at a rolling finish temperature of 800° C or more.

Kondo teaches a method for forming a seamless steel pipe (see abstract). Kondo teaches wherein the pipe is rolled pierced and rolled to form a seamless steel pipe (see cols. 8-9). Kondo teaches heating of the material (see cols. 8-9). Kondo teaches wherein the rolling finish temperature is between 800° and 1050° C, said range overlapping the range as claimed and establishing a prima facie case of obviousness. It would have been obvious to have selected a temperature over 800° C because Kondo teaches the same utility for the entire range of 800° to 1050° C. Applicant is further directed to MPEP 2144.05. Kondo further teaches wherein a normalizing step may be included as desired (see cols. 8-10).

It would have been obvious to one of ordinary skill in the art at time of invention to have made a seamless steel pipe with the composition of Asahi, because Asahi teaches that the composition is suitable to make seamless steel pipes and is excellent in strength and toughness (see [0144]), and further to have used the process of Kondo for making the seamless steel pipe because Kondo teaches that the method has reduced costs and good productivity (see Disclosure of the Invention).

Regarding claim 16, Asahi teaches wherein the pipe is applied with a normalizing treatment as a final heat treatment (see [142], Example 1). Asahi teaches that this treatment may include holding at temperature above  $Ac_3$  for 60 seconds, then "allowing to cool" (see Example 1). Thus the normalization of Asahi meets the limitation of air



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cooling and holding the pipe in a region from Ac<sub>1</sub> to Ac<sub>3</sub> for about five minutes or more, because the steel pipe would have taken a significant amount of time to cool from Ac<sub>3</sub> to Ac<sub>1</sub>.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER KESSLER whose telephone number is (571)272-6510. The examiner can normally be reached on Mon-Fri, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

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csk